# Flora and Vegetation of a Proposed Footpath Alignment through Banksia Woodland

Halifax Drive, Bunbury, 2019.



Prepared for the City of Bunbury July 2019



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# Introduction

The City of Bunbury wishes to apply for a clearing permit for a footpath on South Western Highway at the junction with Halifax Drive. The proposed works would require the removal of up to seven native trees. Native vegetation is protected in Western Australia under the *Environmental Protection Act 1986*. A clearing permit is required to clear native vegetation unless an exemption otherwise applies. Regulation 5, Item 13 provides a clearing permit exemption for the construction of walking tracks, which may apply in this instance. This exemption applies for walking tracks where the clearing is no wider than necessary, the track will be used by pedestrians, all clearing on the property in the relevant financial year doesn't exceed 5 ha and the clearing is outside of an Environmentally Sensitive Area.

The proposed clearing would take place within *Corymbia calophylla-Banksia attenuata* woodland which potentially comprises a Threatened Ecological Community (TEC) (Banksia Woodlands of the Swan Coastal Plain) under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999. To meet the criteria to be accepted as an occurrence of the TEC, the patch being considered needs to meet certain condition and size thresholds (Commonwealth of Australia 2016; pp. 17-23) see **Table 1** below. This report discusses a visit to the site of the proposed footpath and provides an assessment of the affected vegetation with regard to the condition and size thresholds pertaining to potential occurrences of the 'Banksia Woodlands of the Swan Coastal Plain' TEC.

Table 1. Condition and minimum patch sizes for the 'Banksia Woodlands of the Swan Coastal Plain' TEC to be protected under the EPBC Act. (DotEE, 2016).

Condition Category	Minimum Patch Sizes
'Pristine'	No minimum patch size applies
'Excellent'	0.5 ha or 5,000 m <sup>2</sup> (e.g. 50 m x 100 m)
'Very Good'	1 ha or 10,000 m <sup>2</sup> (e.g. 100 m x 100 m)
'Good'	2 ha or 20,000 m <sup>2</sup> (e.g. 200 m x 100 m)

To be considered as part of the EPBC Act ecological community a patch should meet at least the 'Good' condition category. The State PEC community may include areas of degraded condition.

## 1 Field Visit

The site of the proposed footpath at the junction of South West Highway and Halifax Drive was visited on 11 July 2019. Assessments were made at five points within the bushland to the west and at a point east of Halifax Drive. Dominant plant species were recorded, vegetation condition (EPA, 2016) and photos taken at each point (Figure 1 to Figure 6).

#### 2 Results

Banksia attenuata was absent from the vegetation east of Halifax Drive but instead it was open forest dominated by Marri (*Corymbia calophylla*). West of Halifax Drive the vegetation was open forest dominated by Marri with *Banksia attenuata* in the mid-storey, as well as *B. grandis* and \*Acacia longifolia and occasional *B. ilicifolia* and Nuytsia floribunda. Native shrubs in the understorey included Macrozamia riedlei, Melaleuca thymoides, Persoonia longifolia and the climber Hardenbergia comptoniana. The native herb Phlebocarya ciliata and the sedge Lepidosperma squamatum were also present. As well as the small tree \*A. longifolia other introduced species included \*Asparagus asparagoides, \*Briza maxima, \*Ehrharta calycina, \*Hypochaeris glabra, \*Oxalis glabra and \*O. pes-caprae<sup>1</sup>.

Based on the native species present on site the vegetation meets the composition and structural diagnostic criteria of Banksia woodland. The patch of Marri-Banksia woodland between Halifax Drive and Robertson Drive and bounded by South West Highway to the north covers 1 ha (hereafter referred to as the Survey Area).

With regard to condition the vegetation it is Good in parts (relatively high native species diversity but with weed cover of 30-50%) but was mainly (80%+) classed as Degraded. The immediate area where the proposed footpath is to be sited was classed as Degraded.

To be classed as Degraded the following characteristics apply:

- Basic vegetation structure severely impacted by disturbance. Requires intensive management.
  - The understorey of shrubs that would normally be found within vegetation codominated by Banksia attenuata is absent through much of the Survey Area.
- Disturbance evident such as partial clearing, dieback, logging and grazing
  - There is probable evidence of *Phytophthora* disease just east of Halifax Drive, in the area where the footpath would be constructed.
- Presence of very aggressive weeds at high density.
  - The understorey throughout most of the Survey Area is dominated by the introduced grasses \*Briza maxima and \*Ehrharta calycina.

<sup>&</sup>lt;sup>1</sup> \* denotes introduced species.

# 3 Conclusions

Based on the results of the survey reported here it is concluded that the 1 ha of vegetation bounded by Halifax Drive, Robertson Drive and South West Highway does not meet the criteria of condition and size to be considered to be an occurrence of the 'Banksia Woodlands of the Swan Coastal Plain' TEC as defined in Commonwealth of Australia (2016).

## 4 References

Commonwealth of Australia (2016). Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) (s 266B), Approved Conservation Advice (incorporating listing advice) for the Banksia Woodlands of the Swan Coastal Plain ecological community.

EPA (2016). Technical Guidance, Flora and Vegetation Surveys for Environmental Impact Assessment.



Figure 1. Looking toward the location of the proposed footpath. [Condition: Degraded]



Figure 2. Looking toward the location of the proposed footpath. [Condition: Degraded]



Figure 3. 40 m west of Halifax Drive, looking north [Condition: Degraded]



Figure 4. 40 m west of Halifax Drive. [Condition: Good/Very Good].



Figure 5. 80 m west of Halifax Drive [Condition: Degraded].



Figure 6. 120 m west of Halifax Drive [Condition: Degraded].